

*Ephemeris for Physical Observations*

Greenwich Noon.	Angle of Position of U's Axis.	Latitude of Earth   above U's Equator.	Annual Parallax.	Longitude of U's Central Meridian.			Corr. for Phase.
				A-L.	L-O.	I. (877°.90) II. (870°.27)	
1889.							
Feb. 26	357°.492	-2°.245	-2°.404	-9.777	138.269	240°.18	237°.43 +0°.42
Mar. 3	357.147	2.228	2.391	11.016	139.012	309.31	268°.41 .45
8	356.827	2.211	2.377	10.401	139.702	18.51	299°.45 .47
13	356.534	2.195	2.363	10.630	140.336	87.77	330°.56 .49
18	356.268	2.180	2.349	10.800	140.910	157.10	1.74 .51
23	356.031	2.166	2.335	10.907	141.422	226.50	32.98 .52
28	355.825	2.153	2.321	10.948	141.869	295.96	64.29 .52
Apr. 2	355.652	-2.141	-2.307	-10.919	142.246	5.49	95°.67 +0°.52
7	355.512	2.130	2.293	10.818	142.551	75.09	127.11 .51
12	355.406	2.120	2.278	10.643	142.782	144.76	158°.62 .49
17	355.334	2.112	2.263	10.391	142.937	214.49	190.21 .47
22	355.298	2.105	2.249	10.061	143.014	284.29	221.86 .44
27	355.299	2.099	2.234	9.653	143.013	354.16	253.57 .41
May 2	355.335	-2.094	-2.219	-9.165	142.933	64.09	285.35 +0°.37
7	355.407	2.091	2.204	8.600	142.775	134.08	317.18 .32
12	355.514	2.088	2.188	7.959	142.541	204.12	349.06 .28
17	355.654	2.086	2.173	7.245	142.235	274.21	21.00 .23
22	355.826	2.085	2.157	6.462	141.861	344.34	52.98 .18
27	356.028	2.085	2.142	5.615	141.423	54.50	84.99 .14
June 1	356.256	-2.085	-2.126	-4.711	140.928	124.69	117.03 +0.10
6	356.507	2.085	2.110	3.758	140.384	194.90	149.09 .06
11	356.777	2.085	2.094	2.765	139.801	265.11	181.15 .03
16	357.061	2.086	2.078	1.743	139.188	335.32	213.20 .10
21	357.354	2.086	2.062	-0.701	138.556	45.50	245.23
26	357.652	2.085	2.045	+0.350	137.915	115.65	277.24
July 1	357.949	-2.084	-2.029	1.398	137.278	185.76	309.21 -0.01
6	358.239	2.082	2.012	2.432	136.655	255.83	341.12 .03
11	358.518	2.079	1.996	3.440	136.058	325.84	12.97 .05
16	358.780	2.076	1.979	4.413	135.496	35.77	44.76 .08
21	359.021	2.071	1.962	5.342	134.979	105.62	76.46 .12
26	359.238	2.066	1.945	6.218	134.515	175.39	108.08 .17
31	359.427	2.060	1.928	7.033	134.112	245.07	139.61 .22
Aug. 5	359.584	-2.053	-1.911	+7.782	133.775	314.65	171.04 -0.26
10	359.708	2.045	1.893	8.460	133.510	24.13	202.38 .31

of Jupiter, 1889. By A. Marth.

Greenwich Noon.	Diameter Equat.   Polar	Difference of limbs in A.R.   in Decl.	Defect of illumination. Equat.   in A.R. preceding limb.	<i>d</i>	<i>w</i>
1889 Feb. 26	34°79   32°58	2°521   32°59	0°25   0°018	9°77	271°21
Mar. 3	35°26   33°02	2°555   33°03	.27   .020	10°11	.20
8	35°75   33°48	2°590   33°49	.29   .021	10°39	.20
13	36°27   33°97	2°627   33°98	.31   .022	10°62	.19
18	36°82   34°48	2°666   34°49	.33   .024	10°79	.19
23	37°39   35°00	2°706   35°02	.34   .024	10°90	.18
28	37°97   35°55	2°748   35°57	.34   .025	10°94	.17
Apr. 2	38°57   36°12	2°792   36°14	0°35   0°025	10°91	271°16
7	39°19   36°70	2°836   36°71	.35   .025	10°81	.14
12	39°82   37°29	2°881   37°30	.34   .025	10°63	.12
17	40°46   37°88	2°927   37°90	.33   .024	10°38	.10
22	41°10   38°48	2°973   38°50	.31   .023	10°05	.08
27	41°73   39°07	3°019   39°10	.29   .021	9°65	.05
May 2	42°35   39°65	3°064   39°68	0°27   0°019	9°16	271°02
7	42°96   40°22	3°109   40°24	.24   .017	8°59	270°98
12	43°54   40°77	3°152   40°79	.21   .015	7°95	270°93
17	44°09   41°28	3°192   41°30	.18   .013	7°24	270°88
22	44°60   41°76	3°230   41°78	.14   .011	6°46	270°82
27	45°06   42°19	3°264   42°21	.11   .008	5°61	270°73
June 1	45°46   42°57	3°294   42°59	0°08   0°006	4°71	270°62
6	45°80   42°89	3°319   42°90	.05   .004	3°75	270°49
11	46°07   43°14	3°340   43°15	.03   .002	2°76	270°26
16	46°27   43°32	3°355   43°33	.01   .001	1°74	269°7
21	46°39   43°43	3°365   43°44	on following	0°70	268°0
26	46°42   43°47	3°368   43°47	limb	0°35	97°0
July 1	46°37   43°43	3°365   43°43		1°40	92°4
6	46°25   43°31	3°357   does	0°02   0°002	2°43	91°71
11	46°05   43°12	3°343   not	.04   .003	3°44	91°41
16	45°77   42°86	3°323   differ	.07   .005	4°41	91°26
21	45°43   42°54	3°298   from	.10   .007	5°34	91°15
26	45°02   42°16	3°269   polar	.13   .010	6°21	90°16
31	44°56   41°73	3°236   diameter	.17   .012	7°03	91°01
Aug. 5	44°06   41°26	3°200	0°20   0°015	7°78	90°97
10	43°52   40°75	3°161	.24   .010	8°46	.94

Greenwich Noon.	Angle of Position of $\mathcal{J}$ 's Axis.	Latitude of Earth   Sun above $\mathcal{J}$ 's Equator.	Annual Parallax.	Longitude of $\mathcal{J}$ 's Central Meridian. ( $877^{\circ}90$ ) (870 $^{\circ}27$ )			Corr. for Phase.
				$\Delta-L.$	$L-O.$	I.	
1889.							
Aug. 15	359°797	2°036	1.876	9.064	133°320	93°52	233°62
20	359°850	2°026	1.858	9.591	133°207	162°81	264°77
25	359°866	2°015	1.840	10.040	133°171	232°01	295°82
30	359°845	2°004	1.823	10.410	133°215	301°11	326°77
Sept. 4	359°788	-1.992	-1.805	+10.702	133°338	10°12	357°64
9	359°694	1.979	1.787	10.917	133°538	79°05	28°42
14	359°565	1.965	1.769	11.057	133°813	147°89	59°11
19	359°402	1.950	1.750	11.123	134°161	216°66	89°73
24	359°206	1.935	1.732	11.119	134°581	285°35	120°28
29	358°977	1.919	1.714	11.047	135°069	353°97	150°76
Oct. 4	358°718	-1.902	-1.695	+10.910	135°622	62°54	181°17
9	358°430	1.883	1.676	10.712	136°237	131°05	211°53
14	358°116	1.864	1.658	10.455	136°909	199°50	241°84
19	357°776	1.844	1.639	10.144	137°636	267°91	272°10
24	357°412	-1.823	-1.620	+9.782	138°416	336°29	302°33
							0°42

The angle  $\Delta-L$  is the difference of the Jovicentric longitudes of the Sun and Earth, reckoned in the plane of *Jupiter*'s equator;  $L-O + 180^{\circ}$  the Jovicentric longitude of the Earth reckoned from O, the point of the vernal equinox of *Jupiter*'s northern hemisphere or the point of the ascending node of the planet's orbit on its equator.

Two values of the "longitude of  $\mathcal{J}$ 's central meridian" are given for each date: the first, computed with the daily rate of rotation  $877^{\circ}90$ , being intended for comparing the observations of white spots in the neighbourhood of the planet's equator; the second, computed with the rate  $870^{\circ}27$ , for the observations of the remnant of the great reddish spot in the planet's southern hemisphere. This latter rate is the same as that adopted in the ephemerides for the two preceding oppositions, but the zero-meridian has been put back  $10^{\circ}$  or the longitudes in the present ephemeris have been increased  $10^{\circ}$ , in order that the zero-meridian may precede the middle of the spot, at least in case the rate of the spot's motion does not become sensibly accelerated. The daily rate  $877^{\circ}90$  of system I is approximately that of the motion of two bright spots, observed during the past apparition of *Jupiter* at Brighton by Mr. A. S. Williams, who has been good enough to communicate his observations to me, the only ones which have yet come to my knowledge. His few observations of an equatorial spot procured in 1887 seem to belong to one of these spots. But the irregularity and uncertainty of the motion, and the want of sufficient observations between 1885 and 1887 render it, for the present at least, not feasible to establish the

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Greenwich Noon.	Diameter		Difference of limbs in A.R.   in Decl.	Defect of illumination.		d	w
	Equat.	Polar		Equat.   in A.R. preceding limb.	s		
1889 Aug. 15	42° 95	40° 22	3° 120	" 27	0° 019	9° 06	19°
20	42° 36	39° 66	3° 077	" 30	0° 021	9° 59	89°
25	41° 75	39° 09	3° 033	" 32	0° 023	10° 03	88°
30	41° 13	38° 52	2° 989	" 34	0° 025	10° 41	88°
Sept. 4	40° 52	37° 94	2° 944	0° 35	0° 026	10° 70	90° 88
9	39° 91	37° 37	2° 900	" 36	0° 026	10° 10	88°
14	39° 30	36° 80	2° 856	" 36	0° 026	10° 05	89°
19	38° 71	36° 24	2° 813	" 36	0° 026	10° 12	90°
24	38° 13	35° 70	2° 772	" 36	0° 026	10° 11	92°
29	37° 57	35° 18	2° 731	" 35	0° 025	10° 11	95°
Oct. 4	37° 03	34° 67	2° 692	0° 33	0° 024	10° 01	90° 98
9	36° 51	34° 19	2° 655	" 32	0° 023	10° 01	91° 00
14	36° 02	33° 73	2° 619	" 30	0° 022	10° 45	91° 03
19	35° 55	33° 29	2° 585	" 28	0° 020	10° 14	91° 07
24	35° 11	32° 88	2° 552	" 26	0° 019	9° 78	91° 11

connection between these spots and the chief white spot, observed from 1880 to 1886, especially assiduously by Mr. Denning at Bristol.—The differences of successive values of the longitudes of  $\frac{1}{4}$ 's central meridian amount, for the interval of five days, to twelve rotations in addition to the differences directly deduced, so that, for instance, the differences of the first two values are  $4389^{\circ} 13$  and  $435^{\circ} 98$ . The addition of the “correction for phase” to the longitudes of the central meridian gives the longitudes of the meridian which bisects the illuminated disc. A list of Greenwich times when these latter longitudes are  $0^{\circ}$  is given further on.

The diameters of the disc, &c., depend on the same assumed values as in the ephemerides for preceding years. The formulæ employed may be found in vol. xlv. p. 508.

The inclinations  $\gamma$  and the ascending nodes  $\Gamma$  of the orbits of the four satellites of *Jupiter* in reference to the assumed plane of the planet's equator are the following, the longitudes of the nodes being reckoned from O, the point of the ascending node of *Jupiter's* orbit on the equator:

	Sat. I.	Sat. II.	Sat. III.	Sat. IV.
1889.	$\gamma_1$	$\Gamma_1$	$\gamma_2$	$\Gamma_2$
Feb. 26	0° 0106	271° 0	0° 4923	267° 38
Apr. 27	0° 0105	268° 7	0° 4923	265° 45
June 26	0° 0103	266° 3	0° 4923	263° 52
Aug. 25	0° 0102	264° 0	0° 4923	261° 59
Oct. 24	0° 0101	261° 8	0° 4924	259° 66
	$\gamma_3$	$\Gamma_3$	$\gamma_4$	$\Gamma_4$

The following is a list of Greenwich mean times, when the zero meridian in the assumed two systems of longitudes will pass the middle of the illuminated disc :

	I.		II.			I.		II.			
	(877°.90)		(870°.27)			1889.		Apr.	1889.	(877°.90)	(870°.27)
	h	m	h	m	Feb.	26	1	h	m	h	m
27	18	38.1	19	5.0			2	19	31.1	17	12.2
28	14	19.1	14	56.5			3	15	12.1	13	3.5
Mar. 1	19	50.8	20	43.7			4	10	53.1	18	50.5
2	15	31.9	16	35.1			5	16	24.5	14	41.8
3	11	12.9	12	26.5			6	12	5.5	10	33.2
4	16	44.6	18	13.7			7	17	37.0	16	20.2
5	12	25.6	14	5.1			8	13	17.9	12	11.5
6	17	57.3	19	52.3			9	18	49.4	17	58.5
7	13	38.3	15	43.6			10	14	30.3	13	49.8
8	19	9.9	11	35.1			11	10	11.3	9	41.1
9	14	51.0	17	22.3			12	15	42.7	15	28.0
10	10	32.1	13	13.7			13	11	23.7	11	19.3
11	16	3.6	19	0.8			14	16	55.1	17	6.3
12	11	44.7	14	52.2			15	12	36.0	12	57.6
13	17	16.3	10	43.6			16	8	17.0	8	48.9
14	12	57.3	16	30.7			17	18	7.4	18	44.5
15	18	28.9	12	22.1			18	13	48.4	14	35.8
16	14	9.9	18	9.2			19	9	29.3	10	27.1
17	19	41.5	14	0.6			20	19	19.8	20	22.7
18	15	22.5	19	47.7			21	15	0.7	16	14.0
19	11	3.5	15	39.1			22	10	41.6	12	5.3
20	16	35.1	11	30.4			23	16	13.0	17	52.2
21	12	16.1	17	17.5			24	11	53.9	13	43.4
22	17	47.6	13	8.9			25	17	25.3	9	34.7
23	13	28.6	18	55.9			26	13	6.2	15	21.6
24	19	0.1	14	47.3			27	8	47.1	11	12.9
25	14	41.2	10	38.7			28	14	18.5	16	59.8
26	10	22.2	16	25.7			29	9	59.4	12	51.0
27	15	53.7	12	17.1			30	15	30.7	8	42.3
28	11	34.7	18	4.1			May 1	11	11.6	14	29.2
29	17	6.2	13	55.5			2	16	42.9	10	20.4
30	12	47.2	19	42.5				12	23.8	16	7.3
31	18	18.7	15	33.8				8	4.7	11	58.5

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	I.	II.		I.	II.
	(877°.90)	(870°.27)		(877°.90)	(870°.27)
1889.	h m	h m	1889.	h m	h m
May 3	13 36.1	17 45.4	June 3	7 37.8	8 19.7
4	9 16.9	13 36.6		17 28.2	18 15.3
5	14 48.3	9 27.9	4	13 9.0	14 6.5
6	10 29.1	15 14.7	5	8 49.8	9 57.7
7	16 0.4	11 5.9	6	14 21.1	15 44.4
8	11 41.3	16 52.8	7	10 1.9	11 35.6
9	17 12.6	12 44.0	8	15 33.1	17 22.3
10	12 53.5	8 35.2	9	11 13.9	13 13.5
11	8 34.3	14 22.0	10	16 45.2	9 4.7
12	14 5.6	10 13.2	11	12 26.0	14 51.4
13	9 46.5	16 0.1	12	8 6.8	10 42.6
14	15 17.8	11 51.3	13	13 38.0	16 29.3
15	10 58.6	17 38.1	14	9 18.8	12 20.5
16	16 29.9	13 29.3	15	14 50.0	8 11.7
17	12 10.7	9 20.5	16	10 30.9	13 58.4
18	17 42.0	15 7.3	17	16 2.1	9 49.6
19	13 22.9	10 58.5	18	11 42.9	15 36.4
20	9 3.7	16 45.3	19	7 23.7	11 27.5
21	14 35.0	12 36.5	20	12 55.0	7 18.7
22	10 15.8	8 27.6	21	8 35.8	13 5.5
23	15 47.1	14 14.4	22	14 7.0	8 56.6
24	11 27.9	10 5.6	23	9 47.8	14 43.4
25	16 59.1	15 52.4	24	Transit of Earth and Moon across Sun's disc. <i>Vide M.</i> <i>Not. vol. xlvi. p. 163.</i>	
26	12 40.0	11 43.6	25	10 59.9	16 21.3
27	8 20.8	7 34.7	26	16 31.2	12 12.5
	18 11.2	17 30.3	27	12 12.0	8 3.7
28	13 52.0	13 21.5	28	7 52.8	13 50.5
29	9 32.9	9 12.7	29	9 22	Middle of second tabular eclipse of <i>Sat. IV.</i> .*
	19 23.3	19 8.3			
30	15 4.1	14 59.5			
31	10 44.9	10 50.6			
June 1	6 25.7	6 41.8			
	16 16.2	16 37.4		13 24.1	9 41.6
2	11 57.0	12 28.6	30	9 4.9	15 28.4

\* There will be probably no real eclipse, but the satellite will remain visible as a speck of light skirting the margin of the total shadow. *Vide Monthly Notices*, vol. xliv. p. 243.

	I.		II.			I.		II.		
	(877°.90)		(870°.27)			(877°.90)		(870°.27)		
1889.	h	m	h	m	1889.	h	m	h	m	
July 1	14	36.2	11	19.6	July 29	11	46.9	14	22.4	
2	10	17.0	7	10.8	30	7	27.9	10	13.7	
3	15	48.3	12	57.6	31	12	58.4	6	5.0	
4	11	29.2	8	48.9	Aug. 1	8	40.3	11	52.0	
5	7	10.0	14	35.7		18	30.8	21	47.7	
6	12	41.3	10	26.9		21	29	Middle of second eclipse of Sat. IV.		
7	8	22.2	6	18.1		2	14	11.8	7	43.4
	18	12.6	16	13.7		3	9	52.8	13	30.4
8	13	53.5	12	4.9		4	5	33.8	9	21.7
9	9	34.4	7	56.2			15	24.3	19	17.4
10	15	5.7	13	43.0		5	11	5.3	15	8.8
11	10	46.5	9	34.2		6	6	46.3	11	0.1
12	6	27.4	5	25.5		7	12	17.8	6	51.5
	16	17.9	15	21.1		8	7	58.9	12	38.6
13	11	58.8	11	12.3		9	13	30.4	8	29.9
14	7	39.7	7	3.6		10	9	11.4	4	21.3
	17	30.1	16	59.2			19	1.9	14	17.0
15	13	11.0	12	50.4		11	4	52.5	10	8.4
16	3	25	Middle of first real eclipse of Sat. IV. Duration uncertain.				14	43.0	20	4.1
	8	51.9	8	41.7		12	10	24.0	5	59.8
17	14	23.3	14	28.6		20	20	14.5	15	55.5
18	10	4.2	10	19.9		13	6	5.1	11	46.9
19	5	45.1	6	11.1		14	11	36.6	7	38.3
	15	35.6	16	6.8		15	7	17.7	13	25.4
20	11	16.5	11	58.0		16	12	49.3	9	16.8
21	6	57.4	7	49.3		17	8	30.4	15	4.0
	16	47.9	17	45.0		18	14	2.0	10	55.4
22	12	28.8	13	36.3			15	34	Middle of third eclipse of Sat. IV.	
23	8	9.8	9	27.5		19	9	43.0	6	46.8
24	13	41.2	15	14.5		20	5	24.1	12	34.0
25	9	22.1	11	5.8		21	10	55.8	8	25.4
26	5	3.1	6	57.1		22	6	36.8	14	12.6
	14	53.5	16	52.8		23	12	8.5	10	4.0
27	10	34.5	12	44.1		24	7	49.6	5	55.5
28		15.5	8	35.4		25	13	21.2	11	42.7

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	I.		II.			I.		II.		
	(877°.90)		(870°.27)			(877°.90)		(870°.27)		
1889.	h	m	h	m	1889.	h	m	h	m	
Aug. 26	9	23	7	34.1	Sept. 24	11	54.0	6	37.6	
27	14	34.0	13	21.3		25	7	35.2	12	25.0
28	10	15.1	9	12.8		26	3	16.4	8	16.6
29	5	56.2	5	43.3		27	8	48.3	4	8.2
	15	46.8	15	0.0		28	4	29.5	9	55.6
30	11	27.9	10	51.5		29	10	1.4	5	47.2
31	7	9.1	6	43.0		30	5	42.6	11	34.6
Sept. 1	12	40.8	12	30.2	Oct.	1	11	14.5	7	26.2
2	8	21.9	8	21.7		2	6	55.7	13	13.6
3	4	3.1	4	13.2		3	12	27.6	9	5.2
	13	53.6	14	9.0		4	8	8.9	4	56.8
4	9	39	Middle of fourth eclipse of Sat. IV.			5	3	50.1	10	44.2
						6	9	22.0	6	35.9
4	9	34.8	10	0.5		7	5	3.3	12	23.3
5	5	15.9	5	52.0		8	10	35.2	8	14.9
	15	6.5	15	47.7		9	6	16.4	4	6.5
6	10	47.7	11	39.3		10	11	48.3	9	54.0
7	6	28.8	7	30.8		11	7	29.6	5	45.6
8	12	0.6	13	18.1		12	3	10.9	11	33.1
9	7	41.7	9	9.6		13	8	42.8	7	24.7
10	3	22.9	5	1.1		14	4	24.1	3	16.3
	13	13.5	14	56.9			14	14.8	13	12.2
11	8	54.7	10	48.4		15	9	56.0	9	3.7
12	4	35.9	6	40.0		16	5	37.3	4	55.4
13	10	7.6	12	27.3		17	11	9.2	10	42.8
14	5	48.8	8	18.8		18	6	50.5	6	34.6
15	11	20.6	14	6.1		19	12	22.5	12	22.0
16	7	1.8	9	57.7		20	8	3.8	8	13.7
17	12	33.6	5	49.3		21	3	45.0	4	5.4
18	8	14.8	11	36.6			13	35.7	14	1.2
19	3	56.0	7	28.2		22	9	17.0	9	52.8
20	9	27.9	13	15.5		23	4	58.3	5	44.5
21	5	9.1	9	7.1		24	10	30.2	11	32.0
22	10	40.9	4	58.7		25	6	11.5	7	23.6
23	6	22.1	10	46.0						

In order to reduce the longitudes of system I of the three preceding ephemerides to those adopted in the present ephemeris, the following corrections, duly interpolated, must be applied:

1885, Nov. 14	+58°0	1887, Jan. 8	+159°2	1888, Jan. 3	+33°2
1886. Jan. 13	+28°0	Mar. 9	138°2	Mar. 3	+12°2
Mar. 14	-2°0	May 8	117°2	May 2	-8°8
May 13	-32°0	July 7	96°2	July 1	-29°8
July 12	-62°0	Sept. 5	+75°2	Aug. 30	-50°8

The passages over the middle of the illuminated disc observed by Mr. A. S. Williams, and one, observed 1887, July 16, by Mr. Denning, give the following longitudes of the two equatorial spots according to system I of the present ephemeris:

G.M.T.			Long.	Long.	G.M.T.			Long.	Long.
1887.	h	m	°	1888.	h	m	W.	°	1887.6
Mar. 16	13	34	W.	...	177°6	May 13	14	18	167°6
18	14	45	"	...	176°9	15	11	9	8°4
23	13	0	"	...	183°0	19	13	30°5	6°8
July 16	8	12	D.	...	169°2	20	13	50	...
1888.						21	14	44	176°7
Mar. 1	14	57	W.	...	177°7	22	10	22	7°7
	25	14	50	4°2		23	10	32	5°9
Apr. 1	14	9		5°1		24	11	30	170°1
	3	15	21	5°0		25	11	37	3°5
	4	15	31	...	169°1	June	1	11	18
	6	12	13	4°4		2	12	7	180°3
	8	13	20	1°2		3	12	44	8°2
	14	11	40	...	168°3				188°7
	20	15	26	...	174°2	10	11	59°5	...
	26	14	19	1°6		14	9	27	187°5
	29	15	55±	...	174°2±	16	10	29	0°1
May 1	12	26		2°8		17	11	8	181°9
	3	13	44°5	6°8		22	9	15	182°7
	5	14	55	5°8		30	9	10	3°0
	10	13	1°5	6°8		July	1	9	49°5
	11	13	9	...	169°4	18	10	12	...
	12	14	13	6°5		19	10	46	181°1
	13	9	52	5°4		Aug. 25	8	19°5	169°6

*Note on the Values of the Constants for the new Dearborn Observatory.*  
By Lieutenant-General Tennant.

Since the proofs were passed I have received a communication as to the place of this Observatory from Professor Hough, the director, giving the following results:

Longitude from Greenwich. Time.	Corr. to Parts of day.	S.T.M.N.	Lat.	$\tan \phi'$ .	$\log A.$	$\log D.$	$\log P.$
h m s -5 50 42	d -0.243542	s +57.61	$^{\circ}$ 42 ' 03	9.9522	9.6388	0.7671	0.9428

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*Errata in Professor Holden's Observations of Nebulae, Monthly Notices,*  
Vol. XLVIII. No. 9.

Figure at bottom of p. 386—Insert B in the middle of the triangle which has  $d$ ,  $c$  and 14 for vertices.

Page 390, line 4 from top, *dele* “blue.”

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